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# Coding Boot Camp



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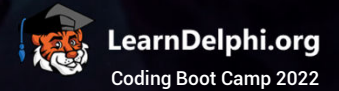
# Session : Core12


## Working with StringGrids





# About Aubrey Pule Khoza



- Lecturer at the department of Computer Science at the Tshwane University of Technology in South Africa
- Passionate about Delphi since Borland Delphi 6
- Software Engineer in various industry projects
- Lives in Pretoria (South Africa) 
- Cricket Fan



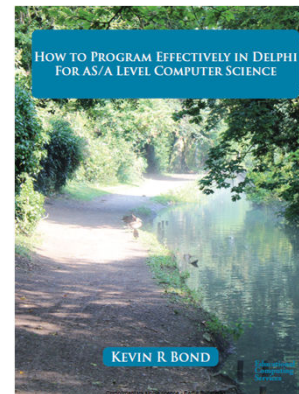
# Session outline



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- Understanding tabular data
- Accessing data records from files
- StringGrid Component
- StringGrid Properties
- MusicDelphi Application


## Textbook reference chapters




Chapters 14 to 16



 SessionXX

 Extras

 Presentation

 Sample\_Applications

# Two Dimensional Arrays

As with one-dimensional arrays, when initializing a multidimensional array the array must be of a type constant.

Note that when we initialized the array that each rows values is within brackets.

Const

```
MyArray: Array[1..4,1..4] of double = ((12.5,23.6,78.9,100),  
                                         (90.5,78.6,45.9,200),  
                                         (78.5,56.6,90.9,300),  
                                         (23.5,34.6,1.9,300));
```



# Text File Procedures and Functions



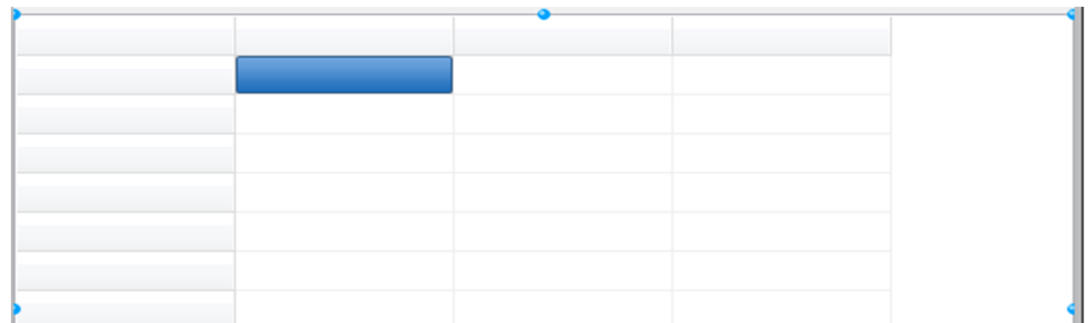
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- We are going to take a look at the most important procedures and functions for text files. They are:
- AssignFile
- Append
- Rewrite
- Reset
- Write
- WriteLn
- Read
- ReadLn
- CloseFile
- Eof
- FileExists



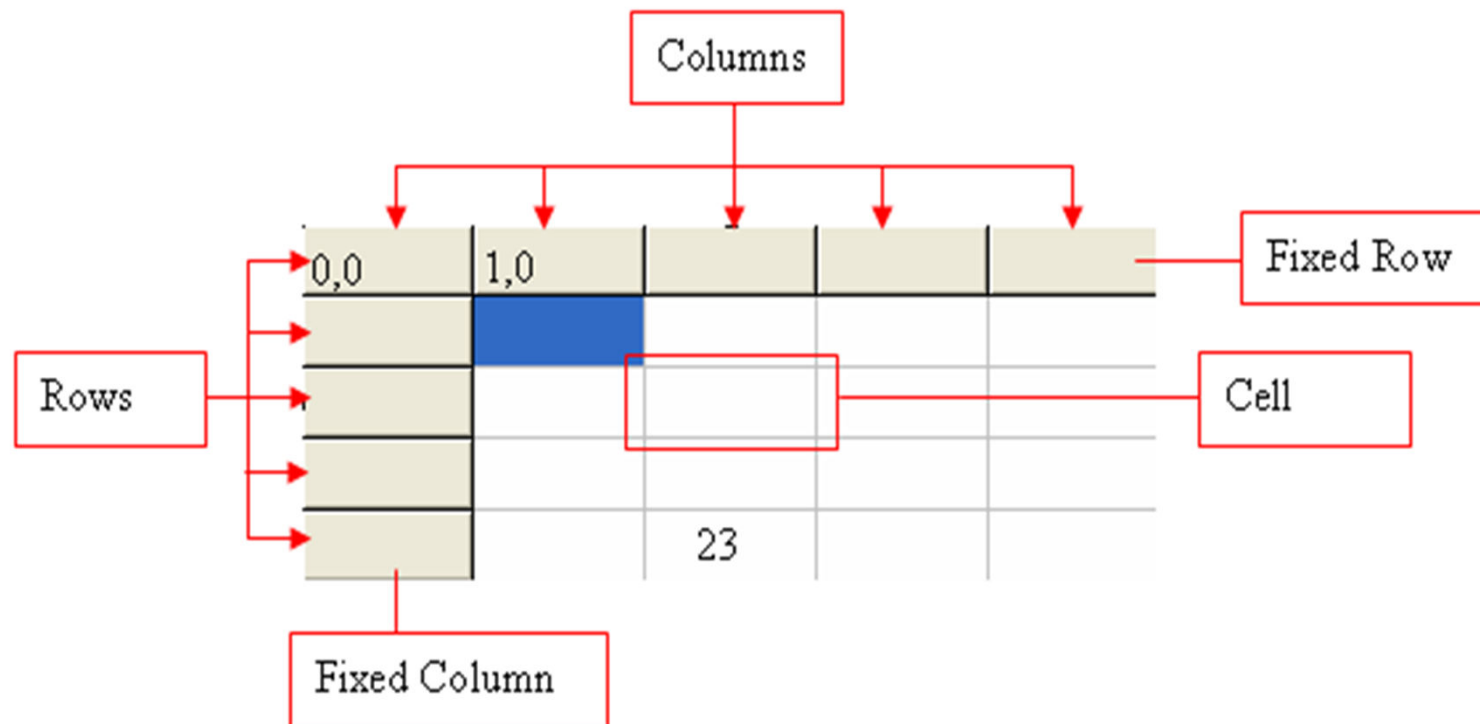
# What is a StringGrid Component

- The StringGrid Component is a visual representation of a grid that consists of rows and columns.
- The StringGrid can also be seen as a visual version of a two dimensional array.
- The StringGrid Component can be found underneath the Additional Tab on the Component Palette.
- One would make use of the StringGrid Component to display a series of values by category.





# What is a StringGrid Component



# StringGrid Properties

- We are going to take a look at the following Properties in the Object Inspector:
- ColCount
- RowCount
- DefaultColWidth
- DefaultRowHeight
- FixedColor
- Color
- FixedCol
- FixedRow
- GridLineWidth
- ScrollBars



# Text File for Music delphi



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artists.txt



MainUnit.pas

```
1 Rob Steward,1967,119338,14348
2 Beyonce,2003,32506,117171
3 John Legend,1998,14364,2636
4 ed Sheeran,2005,10939,4423
5 Black Eyed Peas,1995,31706,6804
6 Britney Spears,1998,30112,17599
7 Jay Z,1988,30370,8037
```



# String Grid for Music Delphi



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Music Delphi

Artist Statistics XML and JSON Artist Information Close

Artist Name	Year Formed	Listeners	Play Count
Rob Steward	1967	119338	14348
Beyonce	2003	32506	117171
John Legend	1998	14364	2636
Ed Sheeran	2005	10939	4423
Black Eyed Peas	1995	31706	6804
Britney Spears	1998	30112	17599
Jay Z	1988	30370	8037

Load Artists

Clear

Show Stats

Most Listeners edtMostListeners

Most Played edtMostPlayed

Newcomer edtNewComer









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# Thank you!



Get the code:  
[github.com/Embarcadero/CodingBootCamp2022](https://github.com/Embarcadero/CodingBootCamp2022)

